

# Claims

[c1] WHAT IS CLAIMED IS:

1.A structural element system for the construction industry, comprising:

post sections;

framed flat elements:

holding sections;

seals;

wherein, for thermal insulation of the post sections and the framed flat elements, the holding sections are attached on the post sections;

wherein the framed flat elements are attached to the holding sections;

wherein the seals together with the post sections form chambers;

wherein, in the mounted state of the structural element system, the the holding sections are enclosed in the chambers.

[c2] 2. The structural element system according to claim 1, wherein the post section is a box section having at least one rectangular box for securing the holding sections, respectively, wherein the rectangular box has on two

parallel outer sides at least two holding lips configured to secure the holding sections and/or a connecting member.

- [c3] 3. A post section for a structural element system according to claim 1, wherein the post section is a box section having at least one rectangular box, wherein the rectangular box has on two parallel outer sides at least two holding lips configured to secure holding sections, connecting members, wall fastening elements, and cover strips.
- [c4] 4. The post section according to claim 3, wherein on at least one of the outer sides on which holding lips are formed two parallel pairs of the holding lips are provided.
- [c5] 5. The post section according to claim 3, wherein on one of the outer side provided with the holding lips two parallel legs are provided for at least partially enclosing a holding section.
- [c6] 6. The post section according to claim 5, wherein the parallel legs have an inner side facing in the mounted state the holding section is coated with a thermal insulation, in particular with strips of sponge rubber, chloroprene, or cork.

- [c7] 7. The post section according to claim 3, having a recess configured to suspend a connecting element.
- [c8] 8. The post section according to claim 7, wherein the recess is substantially T-shaped.
- [c9] 9. A holding section for the structural element system according to claim 1, wherein the holding section is of a multi-part configuration and in cross-section has a substantially U-shaped receptacle for receiving the framed flat elements and a fastening part for attaching the holding section on the post section, wherein the receptacle and the fastening part are connected to one another by at least one stay of a material having minimal thermal conductivity.
- [c10] 10. The holding section according to claim 9, wherein the receptacle and the fastening part are connected to one another by two of the stays that are parallel to one another and made of plastic material.
- [c11] 11. The holding section according to claim 9, wherein the fastening part is configured such that the holding section is inserted laterally into an opening of the post section formed between a pair of holding lips formed on the post section and forms with the post section a partially positive-locking connection.

- [c12] 12. The holding section according to claim 11, wherein the fastening part has a substantially U-shaped section for partially engaging a holding lip of a pair of holding lips formed on the post section and further has a projection for supporting the holding section on the other holding lip of the pair of holding lips.
- [c13] 13. The holding section according to claim 9, wherein, along the receptacle transversely to its longitudinal extension, at certain distances holding bolts are inserted or receptacles for the holding bolts are provided where matchingly shaped framed flat elements are suspended.
- [c14] 14. The holding section according to claim 9, wherein the receptacle has two preferably undercut receiving channels for receiving securing portions of a seal insertable into the receptacle, wherein the securing portions are at least partially complementary to the receiving channels.
- [c15] 15. A fastening element for the structural element system according to claim 1, wherein the fastening element has a contact leg for attaching the fastening element to a wall, a base member, or a carrier and a support leg projecting at a right angle from the contact leg for supporting a connecting member.

- [c16] 16. The fastening element according to claim 15, wherein the contact leg (112) has slotted holes (116,118) for receiving fastening screws.
- [c17] 17. A connecting member for a structural element system according to claim 1, for attaching post sections having holding lips to the fastening element, wherein the connecting member has a saddle section placed onto the support leg of the fastening element and a locking section with at least two wings for engaging from behind the holding lips of a post section.
- [c18] 18. The connecting member according to claim 17, comprising a support leg to be inserted into the receiving section of the fastening element.
- [c19] 19. The connecting member according to claim 17, wherein the locking section has four wings for engaging behind the holding lips of a post section to be fastened having two pairs of parallel holding lips.
- [c20] 20. The connecting member according to claim 17, wherein the locking section is formed such that the wings are moved through a gap formed between a pair of holding lips of the post section to be fastened and moved by relative rotation of the connecting member and the post section into a position behind the holding

lips.

- [c21] 21. The connecting member according to claim 20, wherein at least one of the wings has a stop surface provided for limiting the relative rotation of the connecting member and the post section.
- [c22] 22. A connecting member for the structural element system according to claim 1 for connecting two post sections having a hollow chamber, wherein the connecting member has a first insertion section, insertable into the chamber of the first post section and having a cross-section matching a cross section of the hollow chamber, and a second insertion section, connectable in any desired way to the second post section, wherein the first and second insertion sections are connected by a joint.
- [c23] 23. The connecting element according to claim 22, wherein the second insertion section is configured to be inserted into a T-shaped receiving opening of the second post section.
- [c24] 24. The connecting element according to claim 22, wherein the first insertion section has at least one receiving bore for an eccentric fastener for clamping and securing the first post section.
- [c25] 25. An eccentric fastener having a guide section in-

sertable into receiving bore of a connecting element according to claim 24, and having a preferably conical eccentric section for providing a clamping force between the first insertion section and the first post section.

[c26] 26. A two-part profiled frame for a framed flat element for the structural element system according to claim 1, comprising:  
outer frame sections for engaging an outwardly facing side of a flat element in a mounted state;  
an inner frame section for engaging an inwardly facing side of the flat element in a mounted state;  
wherein the outer and inner frame sections are locked with one another;  
wherein a flat element to be framed is clamped between the outer and the inner frame sections;  
wherein at least on one of the outer frame sections means are provided for attaching the frame sections on a post section or a holding section.

[c27] 27. The two-part profiled frame according to claim 26, wherein the means for attaching the outer frame sections comprise hooks formed on a leg of the outer frame section or receiving opening on a leg of the outer frame sections, in particular, for suspending the framed flat elements on a holding bolt in a receptacle of a holding section.

[c28] 28. A seal for a holding section according to claim 9, wherein the seal has a channel with two sidewalls insertable into a U-shaped receptacle of the holding section and wherein an open end of the channel is provided on each side wall with a sealing lip, respectively, angled toward the outer side of the channel.

[c29] 29. The seal according to claim 38, wherein the sealing lips are provided on a side facing in the mounted state the post section with support beams for supporting the holding section on the post section.

[c30] 30. The seal according to claim 28, wherein the sealing lips on the side facing the holding section have a securing portion having a shape that is at least partially complementary to a receiving channel of the holding section.

[c31] 31. A wall fastening element for the structural element system according to claim 1 for attaching post sections having holding lips, the wall fastening element comprising a contact leg for attaching the wall fastening elements on a support surface and a locking section projecting at a right angle from the contact leg and having at least two wings for engaging from behind the holding lips of the post section.

[c32] 32. A two-part base member for post sections of the



structural element system according to claim 1, the base member comprising a base plate for attachment of the base member on the ground and a securing part for securing a post section, wherein the base plate and the securing plate are configured such that alignment of a post section secured therein in at least two independent directions is enabled, wherein the base plate has at least two slotted holes and an undercut groove, wherein in the undercut groove at least one of a securing screw and the securing part are moveable slidingly.

[c33] 33. The structural element system according to claim 1, further comprising bottom rails for a ground attachment of the post sections and the holding parts for securing the post sections on the bottom rail.

[c34] 34. The structural element system according to claim 33, further comprising sealing lips and spacer elements attachable to the bottom rail for compensating different spacings between the ground and the bottom rail.

[c35] 35. The structural element system according to claim 1, further comprising:  
wall fastening elements for attaching the structural element system to a wall;  
connecting members for connecting the post sections to the wall fastening elements;

and fixation elements for securing a height of the post sections relative to the connecting member.

- [c36] 36. The structural element system according to claim 1, further comprising: connecting elements for connecting two of the post sections preferably at a right angle to one another;  
wherein the connecting elements engage a T-shaped recess in a first post section and, by means of a spring element can be forced out of the second post section in the direction toward the first post section.
- [c37] 37. A frame section for the structural element system of claim 1, the frame section comprising:  
two parallel extending legs extending parallel to the flat elements to be framed.
- [c38] 38. The frame section according to claim 37, wherein a first one of the parallel extending legs has a profiled strip angled toward the flat elements to be framed.
- [c39] 39. The frame section according to claim 37, comprising a receptacle for a corner connection element.
- [c40] 40. The frame section according to claim 37, comprising a receptacle for a seal.
- [c41] 41. The frame section according to claim 37, comprising

a recess for a support section configured, in particular undercut, such that the matching support section forms a snap connection with the frame section.

[c42] 42. The frame section according to claim 41, wherein one of the legs comprises hook-shaped projection or recess for suspension of the frame section in particular from the post section.